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Group Art Unit: 3628 )  
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Serial No.: 09/651,983 )  
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Examiner: F. Poinvil )  
 )  
Filing Date: August 31, 2000 )  
 )  
Title: Adaptive, Predictive )  
System for Replenishing )  
Currency in ATMs )  
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 )  
 )

APPEAL BRIEF

A Summary of Argument Begins on Page 4

CERTIFICATE OF MAILING

I certify that this document is addressed to Mail Stop Non-Fee Amendment, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450, and will be deposited with the U.S. Postal Service, first class postage prepaid, on November 16, 2004.

  
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The fee for this Brief may be billed to Deposit Account 14 - 0225, NCR Corporation.

1. REAL PARTY IN INTEREST

NCR Corporation.

2. RELATED APPEALS AND INTERFERENCES

None.

3. STATUS OF CLAIMS

Claims 1 - 9 are pending, rejected, and appealed.

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#### **4. STATUS OF AMENDMENTS**

No Amendments-After-Final have been submitted.

#### **5. SUMMARY OF INVENTION**

As explained on page 3, line 20 et seq., of the Specification, a central computer which handles ATMs, Automated Teller Machines, makes estimates of the amounts of cash within each ATM. The central computer is called a "switch": see page 1, line 12. Figure 2 shows the ATMs and a switch 3.

Ordinarily, technicians visit the ATMs, count the money and, if replenishment is needed, the technicians insert cash into the ATM. (See page 1, lines 22 - 26.) However, under the invention, this counting is not done (or at least not done every time), and, instead, the central computer remotely makes an estimate of the cash supply within an ATM.

If the cash supply is deemed insufficient, the central computer informs technicians of this insufficiency, and tells the technicians how much cash to re-stock. The technicians visit the ATM, gain access to the internal workings, and temporarily shut down the ATM. At this time, the ATM sends a signal to the central computer, informing that computer of the shut-down.

After the technicians replenish the ATM, they re-start the ATM, and a re-start signal is sent to the central computer, indicating that the ATM is again operational.

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Based on either the shut-down signal, the re-start signal, or both, the central computer infers that the ATM has been replenished with cash. Now the central computer knows how much cash it can order the ATM to dispense to customers.

Significantly, the technicians did not report to the central computer the amount of cash they inserted into the ATM. (See Specification, page 5, line 6 et seq., Significant Feature number 2.)

Also, in one embodiment, the ATMs are, in effect, equipped with burglar alarms. The central computer schedules a time for replenishment of a specific ATM. If the burglar alarm issues a signal during that time, the central computer assumes that the entry into the ATM was not a burglar, but a technician replenishing cash. In response, the central computer classifies the ATM in question as replenished.

## **6. ISSUES**

Whether claims 1 - 3 are obvious under 35 USC § 103, based on Hanna.

Whether claim 4 is obvious under 35 USC § 103, based on Hanna and Ross.

Whether claim 5 is obvious under 35 USC § 103, based on Hanna and Ross.

Whether claims 6 - 9 are obvious under 35 USC § 103, based on

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Hanna and Ross.

## **7. GROUPING OF CLAIMS**

Four groups of claims are present, and the four groups are identified in section 6, immediately above. The Grouping-of-Claims rule only applies to groups containing more than one claim. Only two such groups are present. No claims in any group stand or fall together.

## **8. ARGUMENT**

### **SUMMARY OF ARGUMENT**

#### **CLAIMS 5 AND 6**

Claim 5 recites, speaking generally, that an ATM is able to detect an intrusion, and then transmit an intrusion signal to a central location.

Under claim 5, re-stocking of cash at a specific ATM is scheduled for a specific time period. If the central location receives an intrusion signal during that time period, it assumes that no burglar is breaking into the ATM, but that instead re-stocking is occurring. Consequently, that ATM is classified as re-stocked, in response to the intrusion signal.

That operation has not been shown in the references, even if combined. No reference, in response to an intrusion signal at an ATM, treats that signal as indicating re-stocking of the ATM. The

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rejection cannot stand.

This applies to claim 6.

#### **CLAIM 1**

##### **Summary of Summary as to Claim 1**

Claim 1 recites

"replenishment signals"

and

a "report."

The PTO finds "replenishment signals" and a "report" in the Hanna reference. However, those elements do not possess the characteristics recited in claim 1.

##### **Summary of Argument as to Claim 1**

Claim 1 recites:

1. In connection with operation of a system of ATMs, each of which contains at least one computer, a method comprising the following steps:

- a) identifying low-stocked ATMs, which require replenishment of currency;
- b) causing replenishment of currency in low-stocked ATMs to occur;
- c) receiving replenishment signals from the replenished ATMs; and
- d) using the replenishment signals, and without using communications from parties

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performing the replenishment, preparing one,  
or more, reports concerning the ATMs  
replenished.

The PTO is confusing two **different** procedures in the Hanna  
reference.

First Procedure in Hanna

In one procedure, a merchant deposits a bag of coins and cash  
into an ATM. The PTO treats this as the claimed "replenishment."

Then the ATM issues a receipt to the merchant, which itemizes  
the deposit. The PTO treats this as the claimed "report."

But the PTO is incorrect on both counts.

The deposit is not a "replenishment" of the ATM. The PTO has  
not shown that the contents of the bag are later dispensed to  
customers. That would be required for "replenishment."

And the receipt does not correspond to the claimed "report."

ONE REASON

One reason is that claim 1(d) states that "replenishment  
signals" are used to create the report. No such signals are  
involved in the merchant's deposit, let alone in generation of the  
merchant's receipt.

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## SECOND REASON

A second reason is that claim 1(d) states that the report is prepared "without using communications from parties performing the replenishment." That is impossible, under the PTO's interpretation of Hanna. The merchant made the supposed "replenishment." The merchant requested the receipt. And some content of the receipt was supplied by the merchant, by key-punching a keypad. (Column 31, lines 60 - 63; column 8, lines 36 et seq.; column 21, line 30 et seq.; column 30, line 40 et seq.)

Thus, the merchant communicated with the ATM in at least the following ways:

- by keypunching amounts, and
- by requesting the receipt.

Therefore, in Hanna, the merchant's deposit does not qualify as the claimed "replenishment", nor does the merchant's receipt qualify as the claimed "report."

### Second Procedure in Hanna

#### POINT 1

The second procedure in Hanna to which the PTO applies claim 1 is incomplete: all elements of claim 1 are not present. Hanna refers to the ATM's issuance of signals requesting replenishment, when the ATM runs low on cash. (See column 29, bottom - column 30, top.) However, the undersigned attorney can find no discussion in

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Hanna which describes actual replenishment. Thus, the claimed replenishment is not found in Hanna.

#### POINT 2

The PTO argues that Hanna's replenishment signals correspond to the claimed replenishment signals. However, that is not so. In Hanna, the replenishment signals are replenishment **request** signals. Hanna's ATMs are **requesting replenishment**.

In contrast, in claim 1, the replenishment signals are replenishment **confirmation** signals. Replenishment of an ATM is confirmed.

From another perspective, in claim 1, the replenishment signals occur **after** replenishment. They are received from "replenished ATMs," that is, from ATMs which **have been replenished**. In Hanna, no "replenished ATMs" issue the replenishment signals. **Depleted** ATMs issue the signals, when asking for replenishment.

Thus, any replenishment signals in Hanna do not correspond to replenishment signals recited in claim 1.

#### POINT 3

The PTO asserts that the document of Hanna's Figure 57 qualifies as the "report" of claim 1(d). However, claim 1(d) states that the "replenishment signals" were used to prepare the claimed "report." That is not possible in Hanna's document



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because, as just explained, the claimed "replenishment signals" are not found in Hanna. If the replenishment signals are not present in Hanna, they cannot be involved in preparation of the document, as claimed.

In addition, claim 1(d) states that the report concerns the "ATMs replenished." The document of Hanna's Figure 57 is a report of the status of an ATM, and only "authorized users" are allowed to print that report. (Column 35, line 41 et seq.) Hanna does not state that this report concerns an ATM which has been "replenished."

Any ATM, at any time, in Hanna can issue this report, if an "authorized user" requests. The ATM need not be "replenished." Thus, the document does not "concern" the "ATMs replenished."

#### POINT 4

Even if "replenishment" occurred in Hanna, and the document did "concern" such a "replenished" ATM, then another problem arises. In Hanna, only an "authorized user" can cause an ATM to issue the document in question, namely, that shown in Hanna's Figure 57. That "authorized user" is a technician. It is reasonable to assume that this technician would be the **same person** who performed the replenishment. The PTO has not shown otherwise.

That is contrary to claim 1(d), which states that the report is prepared "without using communications from parties performing

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the replenishment."

#### Conclusion as to Claim 1

There may be "replenishment signals" and a "report" in Hanna. But those elements do not correspond to the **claimed** "replenishment signals" and "report."

#### **Claims 6 and 8**

The Final Action, page 8, first three full paragraphs, tacitly admits that the references fail to show numerous elements of claims 6 and 8.

In an attempt to overcome this failing, the Final Action asserts that each of the (missing) elements is "obvious."

That is insufficient. Obviousness is not a tool for supplying elements missing from a reference. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Further, by law, individual claim **elements** cannot be "obvious." Only claims **as-a-whole** can be "obvious." One reason is that no definition, or body of law, exists to determine whether a claim **element** is obvious. Only claims **as-a-whole** can be "obvious," and a body of law exists for determining whether obviousness exists.

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#### Claim 7

The rejection fails to show claim 7 **as a whole**, as required by section 103.

For this analysis, the actual content of claim 7 may be ignored, and the structure of the claim can be considered. Claim 7 can be viewed as containing a "base part," together with parts A, B, C, and D. From another perspective, five claim elements are present:

- 1) base part,
- 2) part A,
- 3) part B,
- 4) part C, and
- 5) part D.

The PTO asserts that Hanna shows the "base part," and then that

Hanna-plus-A is obvious,  
Hanna-plus-B is obvious,  
Hanna-plus-C is obvious, and  
Hanna-plus-D is obvious.

That is insufficient. That fails to show that claim 7 **as-a-whole** is obvious. Claim 7 **as-a-whole** includes the "base part" plus **all of** A, B, C, and D.

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At best, the PTO has shown that four **sub-sets** (Hanna-plus-A, Hanna-plus-B, etc.) of claim 7 are obvious. That fails to show claim 7 **as-a-whole** to be obvious.

Restated, asserting that **pairs of elements** in a claim (Hanna-plus-A, Hanna-plus-B, etc,) are obvious is insufficient. The claim **as-a-whole** must be shown to be obvious.

From another point of view, Hanna-plus-B, for example, is not a claimed invention. Only inventions can be obvious. There is no legal definition of the term "obvious," as applied to Hanna-plus-B. Consequently, no determination can be made of whether Hanna-plus-B is obvious or not. There is no standard by which to judge.

From yet another point of view, the rejection is incomplete. In proceeding pairwise, the rejection has omitted many pairs. For example, the rejection has not shown that part-A-plus-part-B is obvious.

Asserting that pairs of elements in a claim are obvious does not meet the requirements of obviousness.

This applies to claims 6 and 8.

#### **Comment**

Not all points made in this Summary are elaborated below. Some are considered self-explanatory.

**END SUMMARY**

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## **ARGUMENT**

### **Argument as to Group 1, Claims 1 - 3**

The Final Office Action relies on the First Office Action, plus additional comments made in the Final Action.

Claim 1 and its dependant claims 2 and 3 were rejected as obvious, based on a Hanna Reference. Claim 1 recites:

1. In connection with operation of a system of ATMs, each of which contains at least one computer, a method comprising the following steps:

- a) identifying low-stocked ATMs, which require replenishment of currency;
- b) causing replenishment of currency in low-stocked ATMs to occur;
- c) receiving replenishment signals from the replenished ATMs; and
- d) using the replenishment signals, and without using communications from parties performing the replenishment, preparing one, or more, reports concerning the ATMs replenished.

The First Office Action admits that claims 1(c) and (d) are absent from Hanna. The First Office Action relies on the "Reconciliation Report" of Hanna's column 36 to show these claim recitations. However, several problems exist in this reliance.

### Problem 1

The "replenishment signals" of claim 1(c) have not been shown

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in Hanna. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

In Appellant's response to the First Office Action, Appellant requested, under 37 CFR §§ 1.104(c)(2) and 35 U.S.C. § 132, that the PTO specifically identify the "replenishment signals" in the prior art.

In apparent response, the Final Action, page 3, second paragraph, points to certain passages in Hanna as showing "replenishment signals." However, those signals do not correspond to the **claimed** replenishment signals.

The signals in Hanna (eg, column 13, lines 38 - 51) tell a central agency of a need for replenishment of money in an ATM. That is, they are replenishment **request** signals.

In contrast, the claimed replenishment signals, under claim 1(c), are received "from the replenished ATMs." The claimed signals originate from ATMs which **need no replenishment**. They have been replenished.

Restated, the signals in Hanna are received from terminals **needing replenishment**. They are signals **requesting** replenishment. Under the invention, the replenishment signals are received from ATMs **which have just been replenished**.

The **claimed** replenishment signals are not found in Hanna. No

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replenished ATMs issue the signals, as claimed.

#### Problem 2

The "reconciliation report" of Hanna does not correspond to the report of claim 1(d). Thus, this element has not been shown in Hanna.

The Final Action, page 4, second full paragraph, agrees with this conclusion, but makes an interpretation of Hanna's "reconciliation report" which is self-defeating, creating the problems which will now be explained.

#### Problem 3

In relying on Hanna's "reconciliation report," the Final Action grafts assumptions and interpretations onto Hanna which are contrary to claim 1, and thus self-defeating.

For example, the Final Action, page 4, last paragraph, states that a technician performing replenishment (a "replenisher" in the Final Action's terms) can "print a deposit summary report," which qualifies as the "report" of claim 1(d).

However, claim 1(d) states that the "report" is prepared "without using communications from parties performing the replenishment." Under the Final Action's interpretation of Hanna, the "replenisher" orders the "report." That is contrary to claim 1(d).

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Thus, under the Final Action's interpretation of Hanna, claim 1(d) is not found. And the Final Action's interpretation of Hanna actually **teaches against** claim 1(d).

#### Problem 4

The Final Action is confusing two separate operations in Hanna.

-- One operation is a deposit of cash/coins by a merchant, wherein a receipt is issued to the merchant.

-- Another operation is a supposed re-stocking of currency in an ATM, which currency is later dispensed to customers. The Final Action asserts that a report is generated by the person performing the re-stocking.

The Final Action, at different times, selectively treats the deposit and the re-stocking as the claimed "replenishment."

The Final Action, at different times, selectively treats the deposit-receipt and the re-stocking report as the claimed "report."

These are inconsistent assertions. The Final Action cannot, at different times, use the deposit and the re-stocking as the claimed "replenishment." Depositing and re-stocking are completely different operations. The same applies to the deposit-receipt and the re-stocking report.



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Some reason for these two conclusions are the following.

#### REASON 1

Hanna's deposit-receipt is given to a **depositor**, that is, for example, to a merchant who makes a "bag deposit" of cash and coins.

There is no "replenishment" involved in, or reported by, this receipt. Hanna's Figure 52 provides an example of such a report.

#### REASON 2

Claim 1(d) states that the "report" is prepared "using" the "replenishment signals." Under claim 1(c), those signals are issued by a "replenished" ATM.

Appellant can see no such "replenishment signals" in Hanna, nor use of them in the deposit receipt. For this reason, Appellant previously requested that a "report" prepared "using" the "replenishment signals" be identified in Hanna.

No such identification has been made.

#### REASON 3

Claim 1(d) recites that the "reports" concern "the ATMs replenished." That is, the "reports" have **informational content** which relates to the "ATMs replenished."

Since, under the claim, those "reports" are prepared "using" the "replenishment signals," plainly, those "reports" contain

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**information about the "replenishment."**

In Appellant's response to the First Office Action, Appellant stated that, if the PTO disagreed with this conclusion, then Appellant requested that the PTO explain how the "report" can be prepared "using" "the replenishment signals" and yet contain no information about the "replenishment." No such explanation has been given.

Thus, the claimed "report" contains information about the replenishment. Hanna's deposit receipt contains no such information. The deposit receipt states the amount of money in a deposit. Plainly, it refers to information relating to a transaction undertaken by a customer. That is not a replenishment.

And claim 1 states that the report is prepared without communication from the party performing the replenishment. But, under the PTO's interpretation of Hanna, the merchant is performing the replenishment. The merchant key-punched some content of the receipt of Hanna's Figure 52. That is contrary to claim 1.

**REASON 4**

It could be argued that Hanna's customer, in depositing money, acts to "replenish" the ATM. However, several problems exist in this interpretation, primarily arising from the facts that such an interpretation is not consistent with claims 1(a) and (b).

For example, claim 1(a) states that low-stocked ATMs are

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identified. In Hanna, the merchant making a deposit (the supposed "replenishment") performs no such identification, and no such identification has been shown in Hanna.

Similarly, claim 1(b) states that replenishment in a low-stocked ATM occurs. The PTO has not shown that the merchant's deposit occurs in such an ATM.

Further, a significant problem arises in the PTO's application of Hanna. If the merchant in Hanna is treated as performing the "replenishment," then claim 1(d) is not found. A primary reason is that claim 1(d) states that the report is prepared "without using communications from parties performing the replenishment." In the present case, that means "without communications from (Hanna's) merchant."

But Hanna's receipt of Figure 52 contains material which was supplied by the customer. At least some of those amounts were keypunched by merchants who deposited bags of currency. (Column 31, lines 60 - 63; column 8, lines 36 et seq.; column 21, line 30 et seq.; column 30, line 40 et seq.)

That makes perfect sense. Hanna discusses a system in which a customer deposits a "bag" of money. The customer keys in the amount of the deposit. Hanna's ATM cannot determine the contents of a bag of money.

Therefore, the customer cannot be the party performing the "replenishment" of claim 1. The customer provides part of the

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content of the "reconciliation report" (amount of cash in the bag).  
That is contrary to the claim.

The preceding discussion indicates that several recitations of claim 1 have not been shown in the prior art. Thus, the 103-rejection should not stand.

#### REASON 5

It is illogical for the PTO, at some times, to treat the merchant's deposit as the claimed "replenishment," and, at other times, treat re-stocking as "replenishment." (Again, Hanna does not actually discuss re-stocking.)

It is illogical for the PTO, at some times, treat the document in Hanna's Figure 57 as the claimed "report," and, at other times, treat the receipt given to the merchant as the claimed "report."

The primary reasons are the following:

- the document of Hanna's Figure 57 is not given to the merchant, but to an "authorized user;"
- the document of Hanna's Figure 57 is not issued in response to a deposit by a merchant, nor in response to re-stocking.

Thus, the two procedures in Hanna (deposit and re-stocking) are completely independent operations. The paper document in one procedure has no relevance to the operation (deposit or supposed

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re-stocking) of the other procedure.

The elements of those different procedures lack the claimed interrelationships recited in claim 1.

#### Additional Points

The First Office Action, page 3, bases its rejection on the assertion that "all types of transactions are reported to a remote computer." Appellant requested that this statement be justified, primarily because of the sweeping nature of the generality asserted: "**ALL** types . . . are reported."

One reason is that it seems self-evident that some transactions would **not be** reported. For example, assume a person entered a passcard at an ATM, and then entered an incorrect PIN. The person was rejected. Is that reported to a "remote computer," or simply recorded as a statistic at the ATM and kept there ?

In response to Appellant's request, the Final Action appears to set forth no justification. The PTO has not justified its interpretation of Hanna.

#### No Teaching for Modification of Hanna Shown

The First Office Action, bottom of page 2, admits that Hanna does not show claim 1(d). (A typographical error exists: "does not" should appear after "However, Hanna et al.") And, in fact, Hanna does not show claim 1(d).

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But the First Office Action, top of page 3, asserts that modifying Hanna to include claim 1(d) would be obvious. The supposed motivation for the modification is found in a desire to record certain data about the transaction. (Page 3, end of first paragraph.)

However, this motivation, as a matter of logic and law, does not lead to the conclusion that claim 1(d) should be added to Hanna.

#### REASON 1

One reason is that Hanna himself discusses certain data which Hanna records in the receipt. No showing has been made that Hanna's recordation of that data, as a matter of logic, leads to the addition of claim 1(d) to Hanna.

#### REASON 2

A second reason is that, if Hanna's suggests adding the matter of claim 1(d) to himself, then that matter must be shown in the prior art. That has not been done.

The PTO is using Appellant's own Specification as prior art, by combining claim 1(d) with Hanna, because claim 1(d) has not been shown in the prior art. That is not allowed.

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### REASON 3

A third reason is that, with one exception, Hanna **by himself** already records the data-elements suggested by the PTO at the end of the first paragraph on page 3. (See Figures 52, 57 - 59.)

The exception is the PTO's "deposited replenishment amounts," which are not shown in Hanna. And for good reason: no such amounts are present in, or used by, Hanna. Hanna shows no "amounts" which are both "deposited" and act as "replenishment."

For Hanna to show that, the "deposited replenishment amounts" must be made available for dispensing to other customers, or otherwise somehow qualify as a "replenishment." (Because the stock of money **which is dispensed to customers** is "replenished." Merely adding content to a lockbox within an ATM is not "replenishment.")

Applicant cannot find such "replenishment" in Hanna. The amounts deposited appear to be collected by the bank, and then processed in the normal manner. That is not "replenishment."

Therefore, the PTO asserts that a certain element ("deposited replenishment amounts") is present in Hanna, when, in fact, it is not. The **deposited** amounts are not used for "replenishment."

### CONCLUSION

Thus, the PTO's motivation does not support its conclusion. Its conclusion is that "deposited replenishment amounts" should be recorded by Hanna. But, as just explained, no such amounts are

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present in Hanna. If they are not present, there is no reason to record them.

## Claim 2

Claim 2 recites:

2. Method according to claim 1, wherein each replenishment signal is generated by a computer within an ATM.

Dependant claim 2 is considered patentable, based on its parent.

In addition, under the PTO's interpretation of Hanna, a few different types of replenishment signal are present. In one type (column 30, line 15 et seq.), a central agency tracks cash dispensed by each ATM, and determines when replenishment is needed.

The Final Action, page 3, paragraph beginning with "As per claim 2 . . ." finds a "replenishment signal" here. But that signal is not "generated by a computer within an ATM" as claimed.

Thus, Hanna shows a type of signal which does not conform to the requirement of claim 2. That requirement is that "**each** replenishment signal is generated by a computer within an ATM." In Hanna, as just explained, some of the PTO's "replenishment signals" are generated elsewhere.

Also, as explained above, the claimed "replenishment signal" is actually a signal indicating that replenishment **has occurred**,



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since, under parent claim 1, the signal is issued by a "replenished" "ATM." In Hanna, the signals indicate a **need** for replenishment, and are not issued by "replenished" "ATMs".

Hanna's replenishment signals do not correspond to those of claim 2.

### Claim 3

Claim 3 recites:

3. Method according to claim 2, wherein the replenishment signals indicate contact with an ATM by a party other than a customer in the normal course of business.

In Appellant's response to the First Office Action, Appellant requested that the "party other than a customer in the normal course of business" be identified in Hanna.

No identification has been made. Thus, this claim element has not been shown in the prior art. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

### Conclusion as to Claims 1 - 3

Appellant submits that the rejections of claims 1 - 3 cannot be sustained. As a minimum, the claimed "replenishment signals" and the claimed "report" are not found in Hanna. Also, the "party"

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of claim 3 has not been shown in the references.

**Argument as to Group 2, Claim 4**

Claim 4 was rejected as obvious, based on Hanna and Ross.

Claim 4 recites:

4. Method according to claim 3, wherein entry into an ATM by a burglar causes a replenishment signal to occur.

Appellant submits that the Final Action confuses two modes of operation in Ross.

Mode 1

In one mode, according to the PTO, Ross detects level of currency in a cassette and, if low, states that the currency can be replenished. (Column 7, line 63 et seq.) But entry of a burglar is not required for this.

Of course, if the burglar, once entered, removes sufficient currency from the cassette, then the low level may be reached. However, that removal of currency causes the low-signal in Ross, not the entry of the burglar. Claim 4 states that "entry" causes the signal.

Mode 2

In another mode of Ross, the ATM is equipped with microphones.

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Microphone signals are somehow analyzed, to determine whether a burglar has broken into an ATM. If so, a "warning signal is sent to the remote service station 62, so that the police can be alerted." (Column 8, lines 14 - 26.)

Appellant points out that the "warning signal" must be different from any replenishment signal in Ross. One reason is that, if they were the same, then every time a cassette ran low, the police would be notified. That makes no sense.

Therefore, the operation of claim 4 has not been shown in Ross. Claim 4 states that "entry" by the burglar causes the replenishment signal to occur. Ross generates another type of signal if a burglar is detected.

Final Action Fails to Comply with Section 103

According to the PTO, both references generate a low-stock signal, if cash in an ATM gets low. (Final Action, page 6, third-to-last sentence.) According to the PTO, Ross teaches detecting forced entry into an ATM. (Final Action, page 6, fifth-to-last sentence.)

Then the Final Action concludes:

[It is obvious] . . . that a forced entry in an ATM described in the combination of Hanna and Ross would have caused a replenishment signal to be effected because of funds being taken away.

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(Final Action, page 6, second-to-last sentence.)

This conclusion does not conform to the requirements of obviousness.

The PTO's conclusion pre-supposes a **single** ATM which is discussed by both Hanna and Ross. No such single ATM exists. That single ATM is the PTO's own construct.

Each reference has its own ATM, and its own operations.

Even if References Combined, Claim 4 not Attained

Even if the PTO's reasoning be accepted, it does not lead to claim 4.

Claim 4 states that "entry" causes the replenishment signal to occur.

Under the PTO's reasoning, "funds being taken away" causes the signal. Claim 4 does not recite that.

Further, the "funds being taken away" reasoning is contrary to Ross. Ross himself states that he detects presence of a burglar acoustically, and issues a warning signal. (Column 8, lines 15 - 26.) Removal of funds does not cause that signal.

Rationale for Combining References  
Not Shown in Prior Art

MPEP § 706.02(j) states:

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### Contents of a 35 U.S.C. 103 Rejection

. . .

To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

. . .

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

The PTO's rationale for combining the references has not been shown in the prior art.

### Argument Regarding Group 3, Claim 5

The operation of claim 5 is simply not found in the references, even if combined. Claim 5 recites:

5. In the operation of a system of ATMs, a method comprising:

a) maintaining a security system within each ATM, which

i) detects entry into the ATM, and

ii) issues an entry signal in response;  
and

b) scheduling replenishment of a group of

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ATMs during a time period; and

c) when entry signals are received from ATMs within the group, during the time period, designating the corresponding ATMs as having been replenished in currency.

Point 1

Claim 5 states, in effect, "If you receive a burglar alarm from an ATM in a specific 'time period,' assume that the ATM is being replenished and not burglarized." That operation, or reasoning, is nowhere found in the references, even if combined. Consequently, there is no motivation to perform the actions recited in claim 5. And the actions have not been shown in the references.

Point 2

No teaching has been given for combining the references. The rationale, given on page 5 of the First Office Action, is that the references are combined in order to

-- rank the ATMs in order of priority, and  
then  
-- select a route to reach them in that  
order.

Appellant could not find that concept in the references, and requested that it be identified. To date, no identification has been made.

Further, Appellant fails to see, even if that concept (ranking

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and routing) is found in the references, how that leads to claim 5. The PTO has given no logical connection between the supposed teachings of the references and claim 5.

MPEP § 706.02(j) states:

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. . . the examiner should set forth in the Office action:

. . .

(C) the proposed **modification** of the applied reference(s) necessary to arrive at the claimed subject matter, and

(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

To establish a prima facie case of obviousness, three basic criteria must be met.

. . .

Second, there must be a reasonable expectation of success.

. . .

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

The First Office Action fails to comply with the MPEP section. No likelihood of success has been given showing how the **modification** of the references leads to claim 5. Nor has the

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required teaching been given.

Point 3

The First Office Action, page 5, states:

When a detection of replenishment is made at one of the ATMs, a low stocked-signal would have been sent to a remote location.

Appellant cannot locate that concept in the references, and requested that it be identified. No such identification has been made.

Point 4

The First Office Action, page 4, states:

The step of when entry signals are received from an ATM during the time period designating the corresponding ATMs as having been replenished in currency would have been obvious . . . because replenishment of the ATM would have been made during that period of time.

Appellant points out that this statement employs circular logic. It states, in effect, that

ATMs issue signals indicating replenishment during the time period because they were replenished during the time period.



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That is circular logic. Circular logic is not allowed.

Further, the assumption in this circular logic is not even true. There is no reason why an ATM which is replenished during a time period must issue a confirmation signal during that time period.

By analogy, when you get a flue shot (your antibodies are "replenished") during lunch hour, are you required to submit a claim to your health insurer during that same period ? No.

In addition, Appellant previously requested that the claimed "replenishment signals" during the claimed time periods be identified in the prior art. No identification has been made.

re: Final Action

POINT 1

The Final Action, page 7, lines 2 - 3, asserts that Ross notifies the police if a low stock of money is detected. As explained above, that is not correct. Ross issues a "warning signal" if a break-in is detected. No detection of a low stock is involved.

If the burglar removes cash, and if the cash falls below a limity, then another signal may be issued. But that is not the claimed signal.

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POINT 2

The Final Action, page 7, lines 4 - 5, states that both references issue calls for replenishment. Appellant points out that claim 5 does not recite calls for replenishment.

POINT 3

The Final Action, page 7, first paragraph, does not even assert that all of claim 5 is shown in the references. At best, the Final Action asserts that any replenishment of an ATM requires a time period. But that is irrelevant to claim 5.

Claim 5 states that, if

- 1) a specific time period is assigned for replenishment of an ATM, and
- 2) if an entry signal is received during that time period, then
- 3) it is assumed that that specific ATM has been replenished. (In the claim language, "designating the corresponding ATMs as having been replenished in currency.)

That cause-and-effect relationship has not been shown in the references.

FINAL POINT

Claim 5(c) has not been shown in the references.

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**Argument Regarding Group 4, Claims 6 - 9**

Claim 6 not Shown in Prior Art

Claim 6 recites:

6. A method of replenishing a plurality of ATMs, comprising the following steps:

- a) for each ATM, making an estimate of the amount of currency stored therein, without measuring the currency presently stored;
- b) using the estimates, identifying a subset of ATMs to be re-stocked with currency;
- c) for each ATM in the subset, preparing a packet of currency;
- d) transferring the packets to a courier;
- e) receiving one, or more, signals from each ATM, which indicate interaction with the ATM by a party other than a customer;
- f) recording
  - i) the times of receipt of the signals, and
  - ii) the identities of the ATMs issuing the respective signals; and
- g) ascertaining whether the signals were issued by an ATM within the subset and
  - i) if not, contacting a law enforcement agency;
  - ii) if so, adjusting the estimate of the currency stored within that ATM.

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Appellant points out that most of claim 6 has never been shown in the prior art. At best, the PTO asserts these claim elements to be "obvious." However, as explained herein,

-- "obviousness" is not a substitute for showing claim elements in the prior art and

-- individual claim elements cannot be "obvious;" only claims **as-a-whole** can be obvious.

The following have never been shown in the prior art:

- 1) "identifying" "subsets" "using the estimates" as in claim 6(b);
- 2) the "packet" for "each ATM" as in claim 6(c);
- 3) the "transfer" of claim 6(d);
- 4) the "signals" of claim 6(e), which are received from ATMs in the "subset;"
- 5) the recording operations of claim 6(f);
- and
- 6) the alternate operations of claim 6(g), depending on whether the "signals" were received from ATMs in the "subset."

As a minimum, until all of these claim elements are shown in the prior art, the rejection cannot stand.

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Response to Office Actions

Claim 6(a) recites:

a) for each ATM, making an estimate of the amount of currency stored therein, **without measuring the currency presently stored.**

The First Office Action asserts that two passages in Hanna, namely,

column 13, lines 35 - 67

and

column 30, lines 14 - 39,

show estimating amount of currency in an ATM without actually measuring the amount.

PASSAGE 1

The former passage, when read with the paragraph preceding it, indicates that "messages" (such as the need for replenishment) are generated by a "terminal processor 74" and are based on conditions within "transaction function devices." (Column 13, lines 16 - 17.) The "terminal processor 74" is contained within ATM 10. Thus, the passage relied on by the PTO states that the "terminal processor" learns of the need to replace cash. (Column 13, line 42.)

Thus, it appears that the ATM generates messages indicating a need for replenishment, contrary to the claim passage in

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question, which recites **absence of measurement AT the ATM.**

#### PASSAGE 2

This passage states that an agency, remote from the ATM, keeps track of currency dispensed, and thus knows when replenishment should occur. That is contrary to claim 6(a).

But even if this passage is interpreted as showing claim 6(a), no teaching has been given for selecting this passage, to the exclusion of the contrary Passage 1, for combination with Ross.

#### ADDITIONAL POINT 1

The First Office Action, page 6, paragraph beginning with "Recording the times of . . ." asserts that several elements are "obvious." However, that is insufficient. Those elements must be shown in the prior art. If it is being asserted that those elements are "inherent" in Hanna, then MPEP § 2112 applies, which states:

EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE  
TENDING TO SHOW INHERENCY.

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

No "basis in fact and/or technical reasoning" have been

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provided, as required by this MPEP section.

#### ADDITIONAL POINT 2

Section 103 requires that the "subject matter as a whole" of a claim must be obvious. Asserting that individual elements are "obvious" does not meet this test.

From another point of view, if in the paragraph in question (ie, that beginning with "Recording the times of . . ."), the PTO means to say that the elements in question were "well known" rather than "obvious," another problem arises. Even if those elements are "well known," that fact, at best, merely removes the need to **show** the elements in the prior art, as in a printed publication. Nevertheless, a teaching is still required in favor of combining those elements together.

#### ADDITIONAL POINT 3

The First Action asserts that Ross shows claim 6(g), which recites:

g)     ascertaining whether the signals were  
       issued by an ATM within the subset.

Appellant requested that claim 6(g) be specifically identified in Ross, citing 37 CFR § 1.104(c)(2), which states:

. . . the Examiner must cite the best

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references at his . . . command.

When a reference is complex or shows or describes inventions other than that claimed by the applicant, **the particular part relied on must be designated as nearly as practicable.**

The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

No identification has been made.

To support the request for identification, the undersigned attorney points out that he has read Ross, and found Ross to be concerned with using microphones to "listen" to machinery operating within an ATM, to detect strange sounds indicating malfunctions in the machinery. The vast majority of Ross is devoted to discussions on how his microphones accomplish his goal.

Given that fact, the undersigned attorney fails to see why Ross would discuss the subject matter of claim 6(g), which is an inquiry as to whether certain ATMs issued certain signals. Those are not microphone signals, which are what concerns Ross.

Thus, it is requested that claim 6(g) be identified in Ross.

#### ADDITIONAL POINT 4

The First Office Action asserts that the adjusting process of claim 6(g)(ii) is "obvious," based on both Ross and Hanna. However, claim 6(g) states that the "ascertainment" step induces



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the "adjustment" step. Since, as just explained, the "ascertainment" step is absent, Applicant submits that the "adjustment" step is also absent. Or at least the PTO has not explained this absence.

Further, claim 6(g) recites a condition, and two actions, depending on whether the condition occurs. This alternate operation has not been shown in the references, nor has it been alleged to be present. Thus, as a matter of procedure, the rejection must fail.

#### ADDITIONAL POINT 5

Appelleant repeats that, in the rejection of claim 6, the PTO repeatedly asserts that several elements are "obvious" based on the references. That is not the standard for rejection. The standard is whether the "subject matter as a whole" is obvious.

From another point of view, the PTO cites Hanna to show some elements of claim 6. Then it asserts that other elements four other elements (call them A, B, C, and D) are "obvious" (or "automatic"). However, that does nothing more than assert that

Hanna-plus-element-A is obvious

Hanna-plus-element-B is obvious

Hanna-plus-element-C is obvious and

Hanna-plus-element-D is obvious.

That is, the PTO has only asserted that four **subsets** of claim 6 are

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obvious. That does not show that the "subject matter as a whole" is obvious.

By analogy, assume that an inventor invents a new car in which

-- the engine gets 200 miles per gallon

and

-- the brakes will decelerate from 60 mph to

zero in two feet.

That inventor claims car-plus-brakes-plus-engine.

The PTO may show that

1) car-plus-brakes is obvious, and

2) car-plus-engine is obvious.

Nevertheless, that does not show that car-plus-brakes-plus-engine is obvious. That merely shows that two **SUB-SETS** of the invention are obvious.

In this car-example, and in the present invention, the invention, as a minimum, is the combination of at least two sub-sets. That combination has not been shown to be obvious. This applies to other claims.

re: FINAL ACTION

The Final Action, page 7, first sentence of last paragraph, asserts that "packets" will be prepared. Appellant points out that this has not been shown in the prior art. Appellant points out that, sometimes, "packets" are not used. Technicians sometimes

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simply remove currency from a container, and pack as much currency into cassettes in ATMs as they can.

The Final Action, page 7, second sentence of last paragraph, asserts that use of a courier would be obvious. That fails to comply with the law of obviousness. A single element of a claim cannot be obvious. The claim **as-a-whole** must be shown as obvious.

The Final Action, page 7, third sentence of last paragraph, asserts that Hanna shows signals from an ATM indicating interaction with someone other than a customer. Two passages are cited in Hanna.

One passage is column 30, lines 31 - 35. That passage merely states that level-sensors may be present in the ATM, and will detect when bill- and coin-levels reach a limit. That does not show a signal indicating interaction with someone other than a customer.

The other passage is column 13, lines 35 - 41. That passage only refers to an ATM communicating a need for re-supply.

Neither passage shows what the PTO cites it for.

The last sentence of this paragraph asserts that a particular claim recitation is "obvious." Again, individual claim recitations cannot be "obvious." There is no definition of obviousness in such a situation.

Further, this sentence refers to ascertainment of whether certain ATMs are within a "subset." But the Final Action has shown

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no "subset" in the combined references. Thus, no "ascertainment" of whether an ATM lies within that "subset" can be made.

The Final Action, page 8, first full paragraph, tacitly admits that several claim elements are not shown in the references, but that such elements are "obvious." That fails to comply with the law on obviousness.

Obviousness is not a tool to supply missing elements.

MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

The Final Action, page 8, second full paragraph, asserts that Ross teaches "Ascertaining whether the signals were issued by an ATM within the subset and if not contacting a law enforcement [officer]." The undersigned attorney has read the Ross reference, and cannot locate the following items:

- the "subset,"
- the "signals,"
- the ascertainment step, and
- contacting law enforcement if the ascertainment step is positive.

This assertion regarding Ross fails to comply with the MPEP section cited in the paragraph immediately above.

The Final Action, page 8, last paragraph, asserts that a

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certain adjustment step is obvious, based on the combined references. However, again, individual claim elements are not obvious. Claims as-a-whole are obvious.

In addition, under MPEP § 2143.03, cited above, that step must be shown in the references. That has not been done.

The rejection of claim 6 cannot stand.

#### **Claim 7**

Claim 7 recites:

7. Method according to claim 6, wherein  
no person directly reports replenishment  
currency supply of any ATM.

#### Point 1

The First Office Action asserted that the references show a replenishment signal is transmitted, indicating replenishment of a currency supply in an ATM has occurred. Appellant could not locate that signal, and requested that it be identified.

No identification has been made.

#### Point 2

The Final Action, page 9, top, asserts that a replenishment signal is automatically transmitted to a remote site in the references. Appellant points out that claim 7 does not recite that.

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Point 3

As Points 1 and 2 indicate, the content of claim 7 has not been shown in the prior art.

MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

The preceding applies to claim 8. In addition, Applicant requests that the "report" of claim 8, which is "based on the signals" be identified in the references.

**Claim 8**

Claim 8 recites:

8. In the operation of a group of ATMs,  
a method comprising:

- a) generating a list of
  - i) ATMs scheduled to be replenished in currency, and
  - ii) the amounts of currency to be replenished in each;
- b) receiving signals from the ATMs which indicate that entry into the ATMs has occurred;
- c) based on the signals, preparing a report which indicates

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- i) ATMs scheduled for replenishment;
- ii) ATMs actually replenished; and
- iii) amount of replenishment for each ATM replenished.

Much of the discussion regarding claim 6, given above, applies here. Specifically, the assertions on page 8 in the Final Action that many claim elements of claim 8 are "obvious" are insufficient. As explained elsewhere, claim elements cannot be "obvious." Only a claim **as-a-whole** can be obvious.

In addition, Appellant points out that the following recitations of claim 8 have not been shown in the prior art:

- The "list" of claim 8(a), which shows ATMs and an amount of money for each.
- "Signals from the ATMs" as in claim 8(b).  
"The ATMs" in claim 8(b) are those on the "list." Under claim 8(b), they issue "signals."
- The "report" of claim 8(c), and the stated content.

Appellant also points out the following:

- No "list" has been identified in the references.
- No signals from "the ATMs" on the list have been shown.

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- No "report" prepared "based on" the "signals" has been shown.
- The claimed content of the claimed report has not been shown in the references.

#### Claim 9

Claim 9 recites:


9. Method according to claim 7, wherein no communications, made by parties performing the replenishment, are utilized in preparing said report.

This has not been shown in the references.

#### CONCLUSION

Appellant requests the Board to overturn all rejections, and pass all claims to issue.

Respectfully submitted,

  
\_\_\_\_\_  
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ATTACHMENT: APPENDIX LISTING APPEALED CLAIMS



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## 9. APPENDIX

1. In connection with operation of a system of ATMs, each of which contains at least one computer, a method comprising the following steps:

- a) identifying low-stocked ATMs, which require replenishment of currency;
- b) causing replenishment of currency in low-stocked ATMs to occur;
- c) receiving replenishment signals from the replenished ATMs; and
- d) using the replenishment signals, and without using communications from parties performing the replenishment, preparing one, or more, reports concerning the ATMs replenished.

2. Method according to claim 1, wherein each replenishment signal is generated by a computer within an ATM.

3. Method according to claim 2, wherein the replenishment signals indicate contact with an ATM by a party other than a customer in the normal course of business.

4. Method according to claim 3, wherein entry into an ATM by

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a burglar causes a replenishment signal to occur.

5. In the operation of a system of ATMs, a method comprising:

- a) maintaining a security system within each ATM, which
  - i) detects entry into the ATM, and
  - ii) issues an entry signal in response; and
- b) scheduling replenishment of a group of ATMs during a time period; and
- c) when entry signals are received from ATMs within the group, during the time period, designating the corresponding ATMs as having been replenished in currency.

6. A method of replenishing a plurality of ATMs, comprising the following steps:

- a) for each ATM, making an estimate of the amount of currency stored therein, without measuring the currency presently stored;
- b) using the estimates, identifying a subset of ATMs to be re-stocked with currency;
- c) for each ATM in the subset, preparing a packet of currency;
- d) transferring the packets to a courier;
- e) receiving one, or more, signals from each ATM, which

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indicate interaction with the ATM by a party other than a customer;

f) recording

- i) the times of receipt of the signals, and
- ii) the identities of the ATMs issuing the respective signals; and

g) ascertaining whether the signals were issued by an ATM within the subset and

- i) if not, contacting a law enforcement agency;
- ii) if so, adjusting the estimate of the currency stored within that ATM.

7. Method according to claim 6, wherein no person directly reports replenishment currency supply of any ATM.

8. In the operation of a group of ATMs, a method comprising:

a) generating a list of

- i) ATMs scheduled to be replenished in currency, and
- ii) the amounts of currency to be replenished in each;

b) receiving signals from the ATMs which indicate that entry into the ATMs has occurred;

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c) based on the signals, preparing a report which indicates

- i) ATMs scheduled for replenishment;
- ii) ATMs actually replenished; and
- iii) amount of replenishment for each ATM replenished.

9. Method according to claim 7, wherein no communications, made by parties performing the replenishment, are utilized in preparing said report.